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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,162	01/02/2002	Doron Orenstien	42390P10918	7820
8791	7590	05/07/2004	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD, SEVENTH FLOOR LOS ANGELES, CA 90025				LAU, TUNG S
			ART UNIT	PAPER NUMBER
			2863	

DATE MAILED: 05/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/038,162	ORENSTIEN ET AL.	
	Examiner	Art Unit	
	Tung S Lau	2863	

-- The MAILING DATE of this communication app ars on th cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 08 March 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-27 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 8, 15, 19, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 16, 17, 18, 20-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Mittal et al. (U.S. Patent 5,719,800).

Regarding claim 1:

Mittal discloses a microprocessor comprising: at least one throttling mechanism (abstract); and a thermal control subsystem to estimate an amount of power used by said microprocessor and to control said at least one throttling mechanism based on said estimated power usage (abstract), wherein the thermal control subsystem is in communication with at least one counter and the thermal control subsystem estimates the amount of power used by the microprocessor based on information provided by the at least one counter (fig. 2, unit 205, fig. 1b, unit 102, 104, 101, 103).

Regarding claim 8:

Mittal discloses a method comprising: receiving information provided by at least one counter (fig. 2, unit 205); estimating an amount of power used by a microprocessor based on the information provided by the at least one counter; and controlling at least one throttling mechanism incorporated in the microprocessor based on said estimated power usage (abstract).

Regarding claim 15:

Mittal discloses a thermal control system comprising: a power usage estimator coupled to at least one counter (fig. 2, unit 205), the power usage estimator to estimate an amount of power used by a microprocessor based on information provided by the at least one counter (fig. 2, unit 205, abstract); and a throttling control unit to control at least one throttling mechanism incorporated in the microprocessor based on the estimated amount of power used by the microprocessor (abstract).

Regarding claim 19:

Mittal discloses a machine-readable medium that provides instructions, which when executed by a microprocessor cause said microprocessor to perform operations comprising: receiving information provided by at least one counter (fig. 2, unit 205, abstract); estimating an amount of power used by a microprocessor based on the information provided by the at least one counter; and controlling at least one throttling mechanism incorporated in the

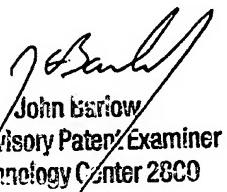
microprocessor based on said estimated power usage (abstract, Col. 2-3, Lines 65-50.

Regarding claims 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 16, 17, 18, 20-27:
Mittal discloses the amount of power used based on the number of occurrences of at least one activity (fig. 1a, unit 106), based on current clock frequency (Col. 1, Lines 36-51, Col. 5, Lines 1-12, Col. 7, Lines 26-35, Col. 8, Lines 25-33), averaging power usage in sampling (Col. 3, Lines 18-27), power is greater than the threshold level (abstract) , deterministic manner (Col. 2-3, Lines 65-50), including instruction decoding (abstract), counting the number of occurrences of at least one activity performed by the microprocessor within a sampling time period (abstract); and adjusting the number of occurrences of said at least one activity according to current operating frequency and voltage level of the microprocessor (Col. 1, Lines 36-50) , estimated amount of power used by the microprocessor against a threshold (abstract); activating said at least one throttling mechanism if said estimated power used by the microprocessor is greater than said threshold; and deactivating said at least one throttling mechanism if said estimated power used by the microprocessor is less than said threshold (abstract); applying estimated power usage values (Col. 1, Lines 52-67, Col. 12, Lines 18-27), implement hardware (Col. 9-10, Lines 65-16, fig. 3, unit 314).

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5841 for Official RightFAX, for regular communications and 703-308-5841 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2815. TC2800 FAX Telephone Numbers: 703-872-9306

TC2800 Customer Service FAX - (703) 872-9317

TL



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